

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P334454

Luminaire Tested: **S122IP-S1080U840-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334454
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-16)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122IP-S1080U840-4F0-1E-UDD-4
Description: DEFINE 2 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 1080 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4252.2 lumens
Efficiency: N/A
Efficacy: 101.5 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Indirect

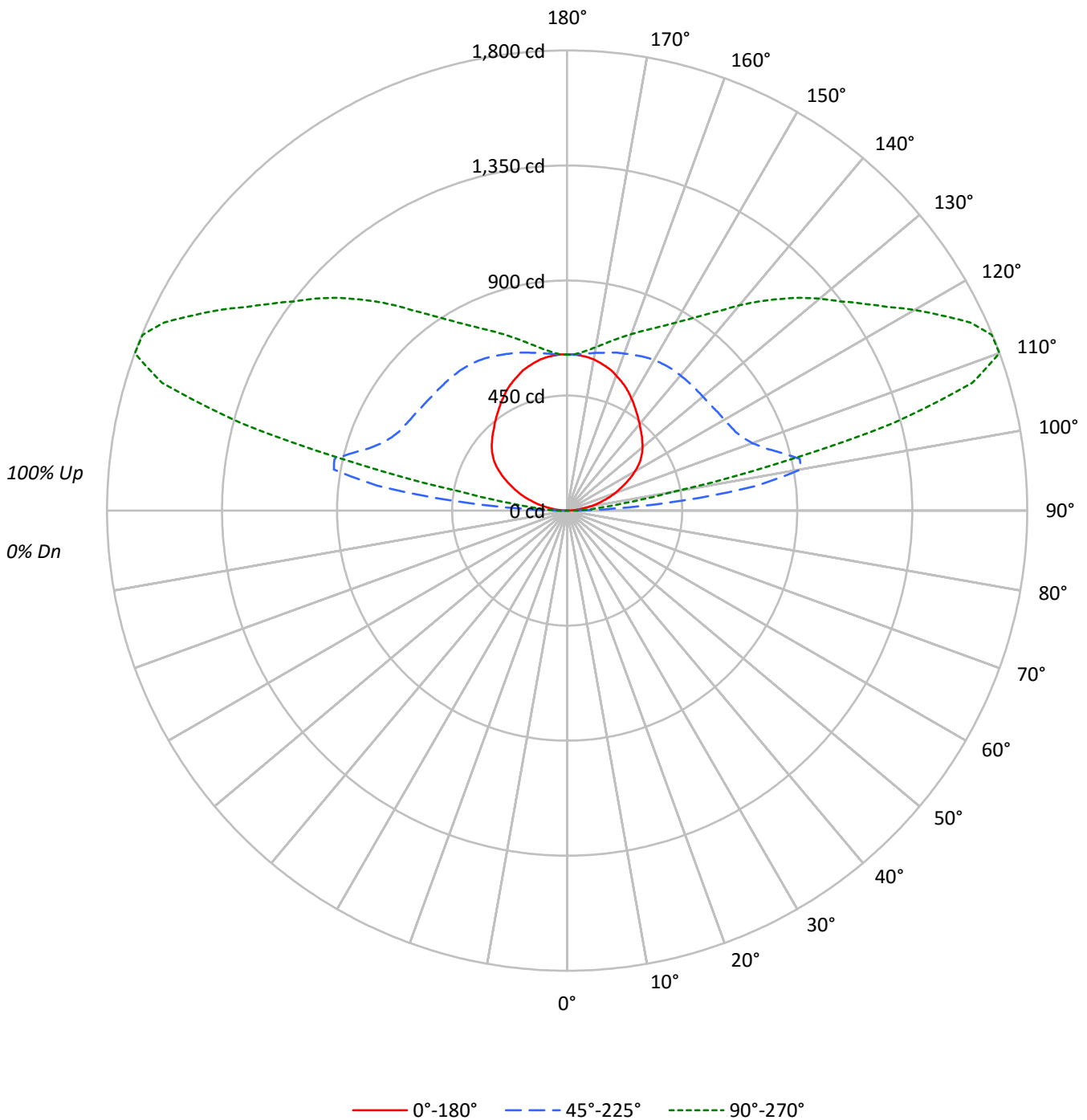
Input Watts (W): 41.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	95	95	95	95	81	81	81	81	56	56	56	32	32	32	10	10	10	0
1	87	83	79	76	74	71	68	65	48	47	45	28	27	26	9	9	8	0
2	79	72	66	62	67	62	57	53	42	40	37	24	23	22	8	7	7	0
3	72	63	56	51	61	54	49	44	37	34	31	21	20	18	7	6	6	0
4	65	56	48	43	56	48	42	37	33	29	26	19	17	16	6	6	5	0
5	60	49	42	36	51	42	36	32	29	25	22	17	15	13	5	5	4	0
6	55	44	36	31	47	38	32	27	26	22	19	15	13	11	5	4	4	0
7	50	39	32	27	43	34	28	23	23	19	17	14	11	10	4	4	3	0
8	47	35	28	23	40	30	24	20	21	17	14	12	10	9	4	3	3	0
9	43	32	25	20	37	27	22	18	19	15	13	11	9	8	4	3	3	0
10	40	29	22	18	34	25	19	16	17	14	11	10	8	7	3	3	2	0

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	0	0	0
5°	0	0	0
10°	0	0	0
15°	0	0	0
20°	0	0	0
25°	0	0	0
30°	0	0	0
35°	0	0	0
40°	0	0	0
45°	0	0	0
50°	0	0	0
55°	0	0	0
60°	0	0	0
65°	0	0	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.0	0.0
10°-20°	0.0	0.0
20°-30°	0.0	0.0
30°-40°	0.0	0.0
40°-50°	0.0	0.0
50°-60°	0.0	0.0
60°-70°	0.0	0.0
70°-80°	0.0	0.0
80°-90°	3.9	0.1
90°-100°	237.8	5.6
100°-110°	837.5	19.7
110°-120°	879.5	20.7
120°-130°	723.6	17.0
130°-140°	581.3	13.7
140°-150°	439.1	10.3
150°-160°	308.7	7.3
160°-170°	181.7	4.3
170°-180°	59.1	1.4
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	3.9	0.1
90°-120°	1954.8	46.0
90°-150°	3698.8	87.0
90°-180°	4248.0	99.9
0°-180°	4252.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	0	0	0	0	0	
5°	0	0	0	0	0	0
15°	0	0	0	0	0	0
25°	0	0	0	0	0	0
35°	0	0	0	0	0	0
45°	0	0	0	0	0	0
55°	0	0	0	0	0	0
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	1	16	40	38	39	3
95°	41	101	460	174	134	42
105°	143	216	869	1554	1322	152
115°	252	318	727	1501	1740	250
125°	352	416	699	1216	1411	313
135°	413	493	691	1022	1170	319
145°	472	542	688	853	934	296
155°	536	579	668	755	785	247
165°	584	602	639	678	689	165
175°	609	609	615	622	621	58
180°	610	610	610	610	610	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	1.2	4.7	9.4	11.7	14.1	17.6	23.5	31.7	38.7	39.9	38.7
92.5°	17.6	24.6	34.0	39.9	49.3	62.2	93.9	138.4	178.3	180.7	151.3
95°	41.1	45.8	57.5	68.0	86.8	115.0	168.9	271.0	407.1	459.9	402.4
97.5°	61.0	68.0	80.9	96.2	117.3	149.0	218.2	360.2	579.5	749.6	755.5
100°	90.3	93.9	104.4	123.2	146.6	179.5	241.7	384.8	638.2	926.8	1095.7
102.5°	117.3	119.7	130.2	149.0	173.6	206.5	262.8	386.0	615.9	932.6	1222.4
105°	143.1	147.8	156.0	173.6	199.4	232.3	287.4	391.8	585.4	869.3	1181.3
107.5°	171.3	174.8	183.0	199.4	225.2	258.1	312.1	404.7	569.0	810.6	1094.5
110°	199.4	204.1	211.2	226.4	251.1	285.1	336.7	421.2	564.3	770.7	1013.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	225.2	229.9	238.1	252.2	275.7	310.9	360.2	438.8	565.4	744.9	957.3
115°	252.2	258.1	265.1	279.2	302.7	334.3	384.8	456.3	570.1	727.3	912.7
117.5°	280.4	285.1	292.1	305.0	327.3	360.2	407.1	475.1	577.2	718.0	882.2
120°	306.2	310.9	317.9	328.5	351.9	384.8	430.5	493.9	584.2	709.7	858.7
122.5°	330.8	334.3	341.4	353.1	376.6	410.6	452.8	510.3	592.4	705.1	838.8
125°	351.9	355.5	362.5	376.6	400.0	432.9	475.1	527.9	600.6	699.2	820.0
127.5°	369.5	374.2	383.6	398.9	421.2	455.2	496.2	544.3	608.9	695.7	802.4
130°	384.8	389.5	401.2	417.6	441.1	473.9	515.0	559.6	618.2	693.3	784.8
132.5°	398.9	404.7	417.6	435.2	459.9	492.7	531.4	574.8	627.6	692.1	770.7
135°	412.9	417.6	431.7	449.3	476.3	509.1	546.7	587.7	634.7	691.0	757.8
137.5°	425.8	431.7	445.8	464.6	491.5	522.0	559.6	598.3	641.7	691.0	748.5
140°	441.1	445.8	459.9	478.6	504.4	534.9	570.1	606.5	646.4	689.8	740.2
142.5°	456.3	459.9	472.8	491.5	516.2	544.3	578.4	613.5	649.9	689.8	732.0
145°	471.6	476.3	488.0	505.6	529.1	554.9	586.6	619.4	652.3	687.5	725.0
147.5°	488.0	491.5	503.3	519.7	539.6	563.1	593.6	622.9	653.4	683.9	718.0
150°	504.4	508.0	517.4	532.6	550.2	571.3	598.3	625.3	652.3	680.4	708.6
152.5°	520.9	522.0	531.4	544.3	560.8	579.5	603.0	626.5	649.9	674.6	700.4
155°	536.1	537.3	544.3	557.2	570.1	587.7	607.7	627.6	647.6	667.5	689.8
157.5°	549.0	550.2	556.1	567.8	578.4	593.6	611.2	627.6	642.9	660.5	680.4
160°	561.9	563.1	567.8	577.2	586.6	599.5	613.5	627.6	639.4	653.4	669.9
162.5°	574.8	573.7	578.4	585.4	593.6	603.0	614.7	626.5	635.8	647.6	660.5
165°	584.2	583.0	585.4	592.4	598.3	605.3	615.9	624.1	631.1	639.4	649.9
167.5°	592.4	591.3	593.6	598.3	603.0	607.7	615.9	622.9	626.5	632.3	639.4
170°	600.6	598.3	599.5	603.0	605.3	608.9	614.7	620.6	622.9	626.5	631.1
172.5°	605.3	604.2	603.0	606.5	607.7	610.0	613.5	617.1	618.2	619.4	622.9
175°	608.9	607.7	606.5	608.9	608.9	610.0	612.4	614.7	613.5	614.7	615.9
177.5°	611.2	608.9	607.7	610.0	610.0	610.0	611.2	613.5	611.2	610.0	611.2
180°	610.0	610.0	610.0	610.0	610.0	610.0	610.0	610.0	610.0	610.0	610.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	37.5	35.2	37.5	38.7	38.7	38.7	38.7	38.7
92.5°	118.5	100.9	88.0	78.6	77.4	72.7	73.9	71.6
95°	307.4	235.8	186.5	160.7	145.5	136.1	132.6	133.7
97.5°	628.8	502.1	383.6	313.2	267.5	244.0	231.1	224.1
100°	1071.1	925.6	764.9	622.9	525.6	475.1	441.1	420.0
102.5°	1360.8	1356.1	1249.4	1096.9	988.9	893.9	849.3	818.8
105°	1425.4	1557.9	1573.2	1534.5	1461.7	1389.0	1338.5	1322.1
107.5°	1356.1	1553.2	1668.2	1715.1	1713.9	1703.4	1688.1	1661.2
110°	1261.1	1471.1	1621.3	1717.5	1767.9	1790.2	1800.8	1799.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1174.3	1373.7	1536.8	1650.6	1725.7	1766.7	1789.0	1797.2
115°	1106.3	1286.9	1440.6	1561.4	1644.7	1698.7	1729.2	1739.8
117.5°	1050.0	1211.8	1355.0	1469.9	1555.6	1613.1	1644.7	1652.9
120°	1010.1	1155.5	1279.9	1386.6	1468.8	1523.9	1557.9	1569.6
122.5°	978.4	1108.6	1224.7	1318.6	1390.2	1444.1	1473.5	1482.8
125°	947.9	1068.7	1172.0	1259.9	1328.0	1372.6	1401.9	1411.3
127.5°	917.4	1028.8	1127.4	1209.5	1269.3	1311.6	1337.4	1344.4
130°	888.1	988.9	1081.6	1159.1	1216.5	1256.4	1279.9	1289.3
132.5°	859.9	951.4	1034.7	1106.3	1162.6	1202.5	1223.6	1231.8
135°	834.1	911.5	988.9	1054.6	1105.1	1143.8	1164.9	1169.6
137.5°	813.0	879.8	943.2	1001.9	1050.0	1084.0	1102.7	1109.8
140°	793.0	849.3	903.3	954.9	992.5	1023.0	1040.6	1047.6
142.5°	776.6	822.4	866.9	908.0	943.2	970.2	985.4	985.4
145°	761.4	800.1	836.4	870.5	898.6	918.6	930.3	933.8
147.5°	749.6	781.3	810.6	836.4	861.1	877.5	885.7	888.1
150°	736.7	762.5	787.2	808.3	825.9	840.0	847.0	848.2
152.5°	723.8	747.3	767.2	784.8	797.7	809.5	814.2	814.2
155°	712.1	730.9	748.5	761.4	774.3	782.5	787.2	784.8
157.5°	698.0	714.4	729.7	740.2	749.6	756.7	759.0	759.0
160°	685.1	698.0	710.9	719.1	727.3	733.2	734.4	734.4
162.5°	672.2	682.8	693.3	699.2	707.4	710.9	712.1	710.9
165°	659.3	667.5	675.7	680.4	685.1	689.8	689.8	688.6
167.5°	646.4	653.4	659.3	664.0	666.3	668.7	668.7	667.5
170°	637.0	640.5	645.2	647.6	648.7	652.3	651.1	648.7
172.5°	626.5	628.8	632.3	633.5	634.7	635.8	634.7	633.5
175°	619.4	620.6	621.8	622.9	622.9	624.1	622.9	620.6
177.5°	613.5	613.5	614.7	614.7	614.7	614.7	613.5	611.2
180°	610.0	610.0	610.0	610.0	610.0	610.0	610.0	610.0

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